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Subject: Does The Weather Affect The Quality Of Music?

Posted by [Jazzy](#) on Wed, 08 Aug 2018 15:33:02 GMT

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I noticed that our wooden door expands or shrinks a little bit depending on the weather. Do you think that the quality of musical instruments made of wood can be affected by weather?

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Subject: Re: Does The Weather Affect The Quality Of Music?

Posted by [gofar99](#) on Thu, 09 Aug 2018 22:22:50 GMT

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Hi, A qualified maybe. There was some information on this a long while back by the reviewers at Stereophile. When they tested stuff in the main office area in Santa Fe (8000 foot level) it was different from when tested at lower elevations. They noted also that high humidity and temperature tended to change results. This almost exclusively applies to speakers. Since then I suspect that most newer speakers are treated to avoid such issues. Temperature can still affect mechanical systems though. My direct drive turntable seems to change speed slightly based on temperature. When cold it actually runs a bit fast (about 1-2%) and requires the trim to be adjusted.

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Subject: Re: Does The Weather Affect The Quality Of Music?

Posted by [Malfoy](#) on Fri, 10 Aug 2018 03:06:11 GMT

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This subject is something I did not know. It makes sense though because different materials react with different temperatures. What makes the turntable run faster in a cold room?

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Subject: Re: Does The Weather Affect The Quality Of Music?

Posted by [gofar99](#) on Fri, 10 Aug 2018 21:14:42 GMT

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Hi, I don't know, but other turntables may be different. It is the only one of mine (there are 6) that does this though. Probably a calibration issue in the control circuit. This one is quite complicated, especially for its vintage. The drive and control assemblies are from a 1975 Dual 701. Once warmed up (perhaps as much as 15 minutes on a really cold day) though it is right on speed all day.

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Subject: Re: Does The Weather Affect The Quality Of Music?

Posted by [Jazzy](#) on Sat, 11 Aug 2018 02:34:24 GMT

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You got an interesting equipment there, gofar99. Most things become slow and sluggish when the

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weather is cold, but not your turntable.

Do you think the pressure has something to do with the elevation test that Stereophile made?

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Subject: Re: Does The Weather Affect The Quality Of Music?

Posted by [Wayne Parham](#) on Sat, 11 Aug 2018 14:29:57 GMT

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The speed of sound changes with temperature, pressure and humidity changes. But it's not nearly as significant as the electro-mechanico-acoustic shifts that happen at different applied power levels. So a loudspeaker's performance varies much more through its (power) operating range than through the ranges of temperature, pressure and humidity people are comfortable of using them in.

A good loudspeaker design is tolerant of parameter shifts. Components should be used well within their operating range, with drivers slightly overdamped. This way parameter shifts will not adversely affect performance.

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Subject: Re: Does The Weather Affect The Quality Of Music?

Posted by [Jazzy](#) on Sun, 12 Aug 2018 18:01:10 GMT

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If I'm understanding correctly, what Wayne just said means that the integrity of the sound is not affected by pressure or temperature with mechanical instruments. What about the wooden violin or even the regular piano, will the sound of these instruments change with different humidity, temperature, and pressure?

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Subject: Re: Does The Weather Affect The Quality Of Music?

Posted by [Wayne Parham](#) on Sun, 12 Aug 2018 23:40:54 GMT

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What I've said relates to loudspeakers, not musical instruments. I am proficient in the design of loudspeakers, but not musical instruments.

Loudspeakers do not depend upon panel resonance, and in fact, are designed to minimize the effects of panel resonance. So the only thing that comes into play is characteristics of the medium, which is air.

There are a lot of properties in loudspeaker design that are affected by the speed of sound, which is why I mentioned the effects of temperature, humidity and (altitude) changes in air pressure.

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But these properties are only mildly affected by the changes caused by temperature, humidity and altitude, and are overshadowed by the parameter shifts from thermal changes due to power.

Musical instruments are very different. They do depend on panel resonance of the instrument body. The wood material and even the finish chosen have an effect on their sound. But this is where my experience ends with respect to musical instruments. I don't know what I would expect to change with environmental shifts. I would hope it wouldn't be too drastic though.

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Subject: Re: Does The Weather Affect The Quality Of Music?

Posted by [Jazzy](#) on Thu, 16 Aug 2018 08:04:39 GMT

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Wayne, I appreciate your explanation. Well, I guess if the people listening are there to enjoy the music, then they won't notice any difference in the sound quality of the musical instrument. For example, an orchestra performing in a park compared to the same orchestra playing in a theater will not matter to the listeners because they are there to enjoy and not to critique.

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Subject: Re: Does The Weather Affect The Quality Of Music?

Posted by [Vaiger](#) on Wed, 27 May 2020 02:32:28 GMT

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Jazzy wrote on Wed, 08 August 2018 10:33I noticed that our wooden door expands or shrinks a little bit depending on the weather. Do you think that the quality of musical instruments made of wood can be affected by weather?

If a guitar is treated, high quality wood, the humidity shouldn't effect it. That, and if they are in climate controlled spaces, that's better still. Instruments can be affected by weather conditions if they are poor quality and the weather conditions are extreme.

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Subject: Re: Does The Weather Affect The Quality Of Music?

Posted by [Kingfish](#) on Sat, 03 Oct 2020 05:40:22 GMT

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When the humidity is high the air is thicker. This may effect how you hear the music, but it doesn't effect how the music comes out.